REMARKS

Applicants respectfully request that the above-identified application be reexamined.

Claims 1-42 are currently pending in this application. An Office Action mailed February 21, 2008 (hereinafter "Office Action"), rejected Claims 1-3, 6-14, 17-32, 35-37 and 40-42.

Claims 1, 3, 6, 7, 9-12, 22-25, 27-30, and 40-42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshida et al., (hereinafter "Yoshida et al."), U.S. Publication No. 2003/0135613, in view of U.S. Publication No. 2004/0249974, to Alkhatib et al (hereinafter "Alkhatib et al.").[1]

Claims 8, 13, 14, 17-21, 26, 31, and 33-38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshida and U.S. Publication No. 2003/0177174, to Allen et al., (hereinafter "Allen et al."), in further view of Alkhatib et al.

Further, Claims 4, 5, 15, 16, 33, 34, 38 and 39 were objected to as being dependent upon a rejected base claim, but indicated to be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Applicants wish to thank the Examiner for allowing Claims 4, 5, 15, 16, 33, 34, 38, and 39 if rewritten in independent form. While applicants disagree with the claims rejections, in order to advance the prosecution, independent Claims 1, 22, 25, and 40 have been amended.

Pursuant to 37 C.F.R. § 1.111 and for the reasons set forth below, applicants respectfully request reconsideration and allowance of the pending claims. Prior to discussing in detail why applicants believe that all the claims in this application are allowable, a brief description of the disclosed subject matter and brief descriptions of the teachings of the cited and applied

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[1] Applicants assume that the Office Action meant Allen et al., not Alkhatib et al., as the Office Action referenced Allen et al. in the rejection of Claims 1, 3, 6, 7, 9-12, 22-25, 27-30, and 40-42.

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references are provided. The following discussions of the disclosed subject matter and the cited and applied references are not provided to define the scope or interpretation of any of the claims of this application. Instead, these discussions are provided solely to assist the United States Patent and Trademark Office in recognizing the differences between the pending claims and the cited references, and should not be construed as limiting on the disclosed subject matter.

Disclosed Subject Matter

A method and system for discovering, identifying, and monitoring servers in a heterogeneous network environment are disclosed. Servers in a heterogeneous network are dynamically discovered by enumerating all of the domains within a network and enumerating all of the known servers in each of the discovered domains. Next, the system acquires and stores additional server contact information necessary to robustly connect to the server. Finally, the system determines the role of the server in a specified domain within the network. The method and system continually monitors the connections to the servers and may use the server contact information to connect to the server in case of a network failure. The method and system further determines if additional information associated with the monitored server is required, the additional information including data necessary to robustly connect to the server or to identify a server type; requests the additional information from the server; and determines the server's role based on the additional information received from the potential server.

Summary of Yoshida et al.

Yoshida et al. describes a load distributed system including a management server provided for managing the network system, an information providing server that stores information to be provided to clients, a network monitoring server that monitors the network, and also acts as an information providing server that stores information to be provided to the clients in the network, a DNS (domain name server) server that manages domain names, an NTS

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(network time service) server that manages network time, and a client system that receives necessary information from the servers enumerated above. The server list manager selects the servers to be accessed by a client terminal management server and generates a list of addresses of the selected servers referred to as a server list.

Yoshida et al. fails to teach, disclose, or suggest determining if additional information associated with the monitored server is required, the additional information including data necessary to robustly connect to the server or to identify a server type; requesting the additional information from the server; and determining the server's role based on the additional information received from the potential server, and the filling in contact information associated with the server including processing the name of the server on the network, the processing comprising: locating the at least one server in a predetermined domain; and storing the name of the server as the contact information necessary for connecting to the server.

Summary of Alkhatib et al.

Alkhatib et al. is directed to a secure communication system that allows local and remote devices to communicate from any location via an Internet connection. Alkhatib et al. describes a system and method that allows local and remote devices to communicate from various locations using a virtual subnet with a virtual address realm. The virtual address realm allows two or more users to communicate securely via a public network, regardless of whether the users are connected to a public or a private network. The virtual address realm uses virtual addresses to identify the devices on the virtual subnet. Although the devices may be in different physical subnets, from the perspective of applications, the devices of the virtual subnet appear to be in one local subnet.

Like Yoshida et al., Alkhatib et al. fails to teach, disclose, or suggest determining if additional information associated with the monitored server is required, the additional

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information including data necessary to robustly connect to the server or to identify a server type; requesting the additional information from the server; and determining the server's role based on the additional information received from the potential server, and the filling in contact information associated with the server including processing the name of the server on the network, the processing comprising: locating the server in a predetermined domain; and storing the name of the server as the contact information necessary for connecting to the server.

Summary of Allen et al.

Allen et al. is purportedly directed towards a method, system, and computer program product applicable within a server for adaptively allocating target resources in a network environment. In accordance with the method of the present invention, a storage name server triggers a forced target rediscovery evolution during competing sessions in which multiple initiator nodes are communicatively connected to a target node utilizing an associated network target address. The target rediscovery mechanism is triggered in response to session feedback received from one or more competing initiator nodes or the object target node. Responsive to the received session feedback, the storage name server issues session interruption instructions, and replaces the network target address associated with the target node with a different network target address. Finally, a target rediscovery message is issued to the competing initiator nodes, wherein the target rediscovery message directs the initiator nodes to rediscover available target nodes in accordance with associated network target addresses.

Like Yoshida et al. and Alkhatib et al., Allen et al. fails to teach, disclose, or suggest determining if additional information associated with the monitored server is required, the additional information including data necessary to robustly connect to the server or to identify a server type; requesting the additional information from the server; and determining the server's role based on the additional information received from the potential server, and the filling in

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contact information associated with the server including processing the name of the server on the network, the processing comprising: locating the server in a predetermined domain; and storing the name of the server as the contact information necessary for connecting to the server.

Rejection of Claims Under 35 U.S.C. § 103(a)

A. Claims 1, 3, 6, 7, 9-12, 22-25, 27-30, and 40-42

As stated above, Claims 1, 3, 6, 7, 9-12, 22-25, 27-30, and 40-42 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshida et al., in view of Allen et al.

Claims 1, 3, 6, 7, and 9-12

Claim 1, as amended, reads as follows:

> 1. A system for discovering and identifying a server, the system comprising:
> a network comprising at least one domain, **the** at least one domain **comprising a plurality of servers**; and
> a communication device comprising:
> a server monitoring unit operable for:
> dynamically discovering **a** server on the network;
> monitoring **the** server on the network;
> determining information associated with the monitored server, wherein the information is used to connect to the monitored server after a network failure situation;
> **determining if additional information associated with the monitored server is required, the additional information including data necessary to robustly connect to the monitored server or to identify the monitored server's type;**
> **requesting the additional information from the monitored server; and**
> **determining monitored the server's role based on the additional information received from the monitored server**; and
> a potential server storage unit operable for storing the information associated with the monitored server.

(Emphasis added.)

Applicants respectfully submit that Claim 1, as amended, is allowable over Yoshida et al., in view of the teachings of Allen et al. because Yoshida et al., taken alone or in

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combination with Allen et al., fails to teach, disclose, or remotely suggest the above recitations of Claim 1 marked in bold.

Because Claims 3, 6, 7, and 9-12 depend directly or indirectly from Claim 1, Claims 3, 6, 7, and 9-12 are submitted to be allowable for at least the same reasons as Claim 1.

Claims 22-24

Claim 22 has been amended to read as follows:

> 22. A method for identifying a server in a network, the method comprising:
>
> designating a remote computer for determining a server role for the remote computer**, the server role being defined by a functionality of the server, the server role including a printer server**;
>
> selecting a role inquiry from a set of role inquiries**, the set of role inquiries comprising requests to determine the server role and requests to monitor the server after the server role has been determined, wherein if the server role has been determined as the printer server, the requests to monitor the server include printer ports information and spool directory information**;
>
> querying the remote computer with the role inquiry;
>
> receiving a response to the role inquiry from the remote computer; and
>
> attempting to determine a server role of the remote computer from the response.

(Emphasis added.)

Applicants respectfully submit that Claim 22, as amended, is allowable over Yoshida et al., in view of Allen et al. because Yoshida et al., taken alone or in combination with Allen et al., fails to teach, disclose, or suggest the recitations of Claim 22 marked in bold. Because Claims 23 and 24 depend from Claim 22, they are submitted to be allowable for the same reasons as Claim 22.

Claims 40-42

Because independent Claim 40 has been amended with the subject matter of, and in a manner similar to, Claim 22, it is submitted to be allowable for at least the same reasons as

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Claim 22. Because Claims 41 and 42 depend from Claim 40, they are submitted to be allowable for at least the same reason as Claim 40.

Claims 25 and 27-30

Claim 25 has been amended to read as follows:

> 25. A computer-readable medium having computer-executable instructions for discovering a server in a network, the computer-executable instructions performing steps comprising:
>
> dynamically discovering **a** server on a network;
>
> receiving a name of the server on the network**, the name being selected from a list comprising a NetBIOS name and a FQDN**;
>
> filling in contact information associated with the server, **the filling in contact information associated with the server including processing the name of the server on the network, the processing comprising:**
>
> **(a) locating the server in a predetermined domain; and**
>
> **(b) storing the name of the server as the contact information necessary for connecting to the at least one server**;
>
> determining whether the network is functioning properly; and
>
> connecting to the server, if the network is not functioning properly.

(Emphasis added.)

Applicants respectfully submit that Claim 25, as amended, is allowable over Yoshida et al., in view of Allen et al. because Yoshida et al., taken alone or in combination with Allen et al., fails to teach, disclose, or remotely suggest the recitations of Claim 25 marked in bold. Because Claims 27-30 depend directly or indirectly from Claim 25, they are submitted to be allowable for at least the same reasons as Claim 25.

B. Claims 8, 13-14, 17-21, 26, 31, and 33-38

Claims 8, 13-14, 17-21, 26, 31, and 33-38 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshida et al. in view of Allen et al., and further in view of Alkhatib et al.

Because Claims 8, 13-14, and 17-21 depend directly or indirectly from Claim 1, which is submitted to be allowable, Claims 8, 13-14, and 17-21 are submitted to be allowable for at least

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the same reasons as Claim 1 since Alkhatib et al. does not make up for the deficiencies of Yoshida et al. and Allen et al., as discussed in regard to Claim 1.

Because Claims 26, 31, and 33-28 depend directly or indirectly from Claim 25, which is submitted to be allowable, Claims 26, 31, and 33-28 are submitted to be allowable for at least the same reasons as Claim 25 since Alkhatib et al. does not make up for the deficiencies of Yoshida et al. and Allen et al., as discussed in regard to Claim 25.

CONCLUSION

In view of the foregoing amendments and remarks, applicants respectfully submit that all of the rejected claims are allowable. Consequently, applicants respectfully request that Claims 1-42 be allowed and this application passed to issue. If the Examiner has any remaining questions, the Examiner is invited to contact applicants' attorney at the number set forth below.

Respectfully submitted,

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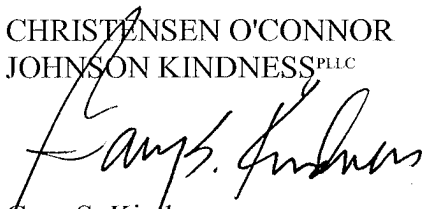

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